

CLAIMS

WE CLAIM:

1. An isolated polynucleotide comprising a nucleotide sequence selected from the
5 group consisting of SEQ ID NO: 1-3, 6, 18, 21-23, 26, 29-31, 33, 36-37, 40, 43, 44-45, 47, 49-50, 52-54, or 56-58, or the mature protein coding portion thereof.
2. An isolated polynucleotide encoding a polypeptide with biological activity, wherein
said polynucleotide hybridizes to the polynucleotide of claim 1 under stringent hybridization
10 conditions (0.5 M NaHPO₄, 7% sodium dodecyl sulfate (SDS), 1 mM EDTA at 65°C).
3. The polynucleotide of claim 1 wherein said polynucleotide is DNA.
4. An isolated polynucleotide which comprises the complement of any one of the
15 polynucleotides of claim 1.
5. A vector comprising the polynucleotide of claim 1.
6. An expression vector comprising the polynucleotide of claim 1.
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7. A host cell genetically engineered to comprise the polynucleotide of claim 1.
8. A host cell genetically engineered to comprise the polynucleotide of claim 1
operatively associated with a regulatory sequence that modulates expression of the
25 polynucleotide in the host cells.
9. An isolated polypeptide, wherein the polypeptide is selected from the group
consisting of:
 - (a) a polypeptide encoded by any one of the polynucleotides of claim 1; and
 - (b) a polypeptide encoded by a polynucleotide hybridizing under stringent
30 conditions with any one of SEQ ID NO: 1-3, 6, 18, 21-23, 26, 29-31, 33, 36-37, 40, 43, 44-45, 47, 49-50, 52-54, or 56-58.

10. An isolated polypeptide comprising an amino acid sequence selected from the group consisting of any one of the polypeptides of SEQ ID NO: 4-5, 7-8, 19-20, 24-25, 27-28, 32, 34-35, 38-39, 41-42, 46, 48, 51, 55, 59-60, or 68-69.

5 11. A composition comprising the polypeptide of claim 9 or 10 and a carrier.

12. An antibody directed against the polypeptide of claim 9 or 10.

10 13. A method for detecting the polynucleotide of claim 1 in a sample, comprising the steps of:

(a) contacting the sample with polynucleotide probe that specifically hybridizes to the polynucleotide under conditions which permit formation of a probe/polynucleotide complex; and

15 (b) detecting the presence of a probe/polynucleotide complex, wherein the presence of the complex indicates the presence of a polynucleotide.

14. A method for detecting the polynucleotide of claim 1 in a sample, comprising the steps of:

20 (a) contacting the sample under stringent hybridization conditions with nucleic acid primers that anneal to the polynucleotide of claim 1 under such conditions; and

(b) amplifying the polynucleotide or fragment thereof, so that if the polynucleotide or fragment is amplified, the polynucleotide is detected.

25 15. The method of claim 14, wherein the polynucleotide is an RNA molecule that encodes the polypeptide of claim 9 or 10, and the method further comprises reverse transcribing an annealed RNA molecule into a cDNA polynucleotide.

30 16. A method of detecting the presence of the polypeptide of claim 9 or 10 having the amino acid sequence of any one of SEQ ID NO: 4-5, 7-8, 19-20, 24-25, 27-28, 32, 34-35, 38-39, 41-42, 46, 48, 51, 55, 59-60, or 68-69, or a fragment thereof in a cell, tissue or fluid sample comprising:

(a) contacting said cell, tissue or fluid sample with an antibody or fragment of claim 10 under conditions which permit the formation of an antibody/polypeptide complex; and

(b) detecting the presence of an antibody/polypeptide complex, wherein the presence of the antibody/polypeptide complex indicates the presence of any of the polypeptides of claim 10.

5 17. A method for identifying a compound that binds to a polypeptide of any one of SEQ ID NO: 2, ... comprising:

 (a) contacting a compound with the polypeptide of any of SEQ ID NO: 4-5, 7-8, 19-20, 24-25, 27-28, 32, 34-35, 38-39, 41-42, 46, 48, 51, 55, 59-60, or 68-69 for a time sufficient to form a polynucleotide/compound complex; and

10 (b) detecting the complex, so that if a polypeptide/compound complex is detected, a compound that binds to any one of SEQ ID NO: 4-5, 7-8, 19-20, 24-25, 27-28, 32, 34-35, 38-39, 41-42, 46, 48, 51, 55, 59-60, or 68-69 is identified.

 18. A method for identifying a compound that binds to any one of the polypeptides of SEQ ID NO: 4-5, 7-8, 19-20, 24-25, 27-28, 32, 34-35, 38-39, 41-42, 46, 48, 51, 55, 59-60, or 68-69, comprising:

 (a) contacting a compound with the polypeptide of any one of SEQ ID NO: 4-5, 7-8, 19-20, 24-25, 27-28, 32, 34-35, 38-39, 41-42, 46, 48, 51, 55, 59-60, or 68-69, in a cell, for a time sufficient to form a polypeptide/compound complex, wherein the complex drives the expression of a reporter gene sequence in the cell; and

20 (b) detecting the complex by detecting reporter gene sequence expression, so that if a polypeptide/compound complex is detected, a compound that binds to any one of the polypeptides of SEQ ID NO: 4-5, 7-8, 19-20, 24-25, 27-28, 32, 34-35, 38-39, 41-42, 46, 48, 51, 55, 59-60, or 68-69 is identified.

25 19. A method of producing the polypeptides of claim 9 or 10, comprising:

 (a) culturing the host cell of claim 7 or 8 for a period of time sufficient to express the polypeptide; and

30 (b) isolating the polypeptide from the cell or culture media in which the cell is grown.

 20. A kit comprising any one of the polypeptides of claim 9 or 10.

21. A nucleic acid array comprising the polynucleotide of claim 1 attached to a surface.

22. The polypeptide of claim 9 or 10 wherein the polypeptide is provided on a polypeptide array.

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